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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/744,515 | 01/23/2001 | Ernst Paul Goatley | 41616/VGG/B6 | 8569 |

7590 11/20/2002

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EXAMINER

BURCH, MELODY M

ART UNIT PAPER NUMBER

3683

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,515

Applicant(s)

GOATLEY, ERNST PAUL

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the gear being freely rotatable relative to the shaft as claimed in claim 1 and as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. ✓
2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Objections

3. Claims 11-16 are objected to because of the following informalities: the preambles are not the same as that of claims 1 and 7 from which the claims depend. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are replete with 112 issues including but not limited to:

Re: claim 1. The phrase "said piston" in line 4 is indefinite. The phrase limits the number of pistons to one, however in line 3 "at least one piston" is claimed. Examiner recommends the use of such language as --said at least one piston-- in line 4. The explanation also holds true for "said clutch means" in line 6.

Re: claim 11. Claim 11 recites the limitation "the synchro-hubs and cones" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Re: claim 11. The phrase "each gear" in line 3 is indefinite. The use of the word "each" implies that more than one gear was previously claimed, however in claim 1 only "a gear" was claimed.

Re: claim 13. The phrase "each hub" in line 3 is indefinite. The use of the word ^{mean} "each" implies that more than one gear was previously claimed, however in claim 1 only "a hub" was claimed.

Re: claim 15. Claim 15 recites the limitation "each pair of adjacent gears" in

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line 3. There is insufficient antecedent basis for this limitation in the claim. No pair of adjacent gears was previously claimed.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-9, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-9112636.

Re: claims 1-3, 5, 6, 7, 8, 9, 11, and 12. JP-9112636 in figure 3 a gearbox adaptor including a casing 8, a hub 41 to be engageable with a gear shaft S3 for rotation therewith; at least one piston 45B,45F mounted within the hub; means for supplying fluid from the exterior of the hub to a first face of said piston so as to move the piston in a first direction; at least one clutch means shown immediately below the arrow of C_B adjacent the piston, part of the clutch means being engaged with the hub and a different part of the clutch means being engageable with a gear G6 locatable on the gear shaft adjacent the hub, the gear being freely rotatable relative to the shaft, the clutch means being located and arranged such that movement of the piston in the first direction inter-engages the parts of the clutch to drivingly engage the gear and the gear shaft.

Re: claim 4. JP-9112636 shows in figure 1 the clutch means comprising a clutch pack which consists of a first series of spaced plates 43 each of which is engaged with the hub for rotation therewith but which is reciprocable parallel to the longitudinal axis of the hub; and a second series of spaced plates 44 each of which is engageable with the gear G6 mounted upon the gear shaft but which is reciprocable parallel to the longitudinal axis of the hub, the second series of plates being interleaved with the plates of the first series.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-9112636 in view of US Patent 4462271 to Stieg. Stieg teaches in col. 3 lines 23-26 that either pneumatic or hydraulic fluid may be used to operate a clutch assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the adaptor of JP-9112636 to have included pneumatic fluid, as taught by Stieg, in order to provide an alternate source of power to operate the piston of the clutch assembly.

10. Claims 13-16 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-9112636 in view of US Patent 4843902 to Patton et al. JP-9112636 describes the invention substantially as set forth above including the limitation of the transmissions

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being shifted by actuators which are operated under electromagnetic control, but does not specifically disclose the limitation of two switches as taught in col. 6 lines 39-47, solenoid valves as shown in the area of element 30 and a control means 100,110. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the electromagnetic control of JP-91 12636 to have included switches, solenoid valves, and a control means, as taught by Patton et al., in order to provide a means of controlling the transmission power.

Response to Arguments

11. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb 11/18/02
mmb
November 18, 2002

M.C. Graham 11/19/2002
MATTHEW C. GRAHAM
PRIMARY EXAMINER
GROUP 310